

Rhode Island Department of Health

Cancer Control Program

Oral Cancer in Rhode Island

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Objectives

In anticipation of renewed cancer control planning in the state, the Rhode Island Department of Health (the Department) analyzed data on oral cancer incidence and mortality for Rhode Island and for the United States, as well as data on oral cancer screening and smoking (a major risk factor for oral cancer¹) for Rhode Island.

Methods

State and national incidence rates and national mortality rates were taken from publications of the National Cancer Institute and the North American Association of Central Cancer Registries.^{2,3} State mortality rates were constructed from Rhode Island vital records and census data for 1980 and 1990. All rates were age-standardized using the 1970 population of the United States as the standard population. Because previous analysis had suggested under-reporting of newly diagnosed oral cancers in Rhode Island,⁴ incidence rates for the state were adjusted for under-reporting. Rhode Island data on smoking, use of dental care, and receipt of screening for oral cancer were obtained from the 1990 Rhode Island Health Interview Survey, a telephone survey of 2,588 households (response rate = 79%) contacted through random digit dialing with over-sampling of black and Hispanic households. Nevertheless, data presented here for Rhode Island's black population are based on small numbers of cases and therefore should be interpreted with due caution.

Observations

An estimated 140 cases of invasive oral cancer are diagnosed annually in Rhode Island. About 40 residents die of the disease each year. Oral cancer incidence and mortality rates for the state are higher than national rates (Table 1). In both the state and the nation, males are far more likely than females, and blacks more likely than whites, to suffer from the disease.

Table 1. Incidence and mortality rates,* cancer of the oral cavity and pharynx, by sex and race, Rhode Island and the United States, 1988-1991.

	Incidence		Mortality	
Sex/Race	Rhode Island	United States	Rhode Island	United States

Males				
All Races	21.7	16.1	6.2	4.6
Whites	21.0	15.5	6.0	4.2
African Americans	39.2	23.2	11.2	9.4
Females				
All Races	4.6	6.2	1.3	1.7
Whites	4.6	6.1	1.3	1.6
African Americans	7.0	6.7	2.0	2.3

* Rates expressed as newly diagnosed cases or deaths per 100,000, age-adjusted using the 1970 population of the United States as the standard population. Rhode Island incidence rates have been adjusted for undercount.

Sources:

- RI cancer rates: Howe HL, Bernstein L, Chen V, *et al.* *Cancer incidence in North America, 1988-1991*. North American Association of Cancer Registries, April, 1995. And: RI Cancer Registry, RI Department of Health.
- U.S. cancer rates: Gloeckler Ries LA, *et al.* *SEER Cancer Statistics Review, 1973-1991: Tables and Graphs*. National Cancer Institute. NIH Pub. No. 94-2789. Bethesda, MD, 1994.

Fewer than three-quarters of Rhode Island adults receive dental care annually, and fewer than two-thirds receive annual dental check-ups (Tables 2 and 3). Only about one-quarter report having had their tongue manipulated with gauze, i.e., being screened for oral cancer, as part of their last dental check-up. This procedure is considered an essential part of thorough oral cancer screening. Whites are more likely than blacks to receive annual dental care, including check-ups.

Table 2. Percentages of adults who reported a dental visit in the past year, who reported a preventive dental check-up and cleaning in the past year, and who reported having their tongues held with gauze during their last dental check-up, by sex and race, Rhode Island, 1990			
Sex/Race	Dental Visit	Dental Check-up	Gauze Use
Males			
Whites	71	64	24
African Americans	52	40	41
Females			
Whites	73	67	24
African Americans	60	43	25

Source: Rhode Island Health Interview Survey, 1990

Current smokers are less likely than former smokers and people who never smoked to receive annual dental care, including check-ups.

Table 3. Percentages of adults who reported a dental visit in the past year, who reported a preventive dental check-up and cleaning in the past year, and who reported having their tongues held with gauze during their last dental check-up, by smoking status, Rhode Island, 1990			
Smoking Status	Dental Visit	Dental Check-up	Gauze Use
Never smoked	74	70	25

Former smoker	72	65	24
Current smoker	65	53	23

Source: Rhode Island Health Interview Survey, 1990

Discussion

"By 1995, 95% of oral examinations should include a complete tissue screening examination for oral cancer" is one of three screening objectives chosen for Rhode Island in 1989.⁵ Baseline data reveal a large gap between this objective and current practice. Data to be collected in the 1995 Rhode Island Health Interview survey will measure progress achieved in the intervening five years. Even if the state's oral cancer screening objective were to be achieved, however, many Rhode Islanders might not be screened frequently. Only about two-thirds, for example, receive annual dental check-ups, where preventive care focusses entirely on the mouth. This proportion is even lower among groups at higher risk of oral cancer, such as blacks and current smokers.

Primary care physicians can help increase the frequency of complete tissue exams for oral cancer, as recommended previously (Table 4).⁶ Complete tissue exams add little time to the cursory oral exams normally performed during medical check-ups, and might be focussed on those at high risk of oral cancer. Together, primary care physicians and primary care dentists see a higher proportion of the Rhode Island population annually than either group alone, and might contribute significantly to lowering oral cancer mortality.

Table 4. Screening recommendations for oral cancer

"Oral cancer screening should be performed by all health professionals who do oral exams, whenever oral exams are performed, especially on persons 35 years of age and over. Screening should include thorough visual inspection, including extrusion of the tongue with gauze, looking for:

- changes in color (leukoplakia, erythroplakia),
- changes in texture (leathery consistency, strawberry or mulberry appearance),
- changes in continuity (ulcers, lumps), and
- changes in motility (deviations, fixations),

followed by palpation of lips, cheeks, tongue, floor of the mouth, palate, salivary glands and lymph nodes (cervical, preauricular, postauricular), focussing special attention on high-risk areas, including the floor of the mouth, lateral borders of the tongue, hard and soft palate, retromolar trigone area including oropharynx, and documentation of the exam in the patient record. Detection of suspicious lesions should result in prompt treatment or referral."

References

1. Page HS, Asire AJ. Cancer Rates and Risks. National Cancer Institute. NIH Publication No. 85-691. Bethesda, MD, 1985.
2. Ries LAG, Miller BA, Hankey BF, et al. (eds). SEER Cancer Statistics Review, 1973-1991: Tables and Graphs. National Cancer Institute. NIH Pub. No. 94-2789. Bethesda, MD, 1994.
3. Howe HL, Bernstein L, Chen V, et al. Cancer incidence in North America, 1988-1991. North American Association of Cancer Registries, April, 1995.

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